



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,713	02/02/2006	Philip Stephen Fullam	1111-29	7486
24106 7590 03/20/2008 EGBERT LAW OFFICES 412 MAIN STREET, 7TH FLOOR HOUSTON, TX 77002				
EXAMINER				
HAYES, KRISTEN C				
ART UNIT		PAPER NUMBER		
3643				
MAIL DATE		DELIVERY MODE		
03/20/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/535,713

**Applicant(s)**

FULLAM ET AL.

**Examiner**

Kristen C. Hayes

**Art Unit**

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date 20050825
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election of Group I, claims 1-8 in the reply filed on 27 December 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 28. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The disclosure is objected to because of the following informalities: reagent 30. (page 10, line 18). Reference character 30 is previously disclosed as milk conduit.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Knight EP 0 489 602.
5. Regarding claim 1, Knight discloses a method of testing milk from an animal for the presence of an infection in the animal (Knight, abstract) comprising the steps of introducing a sample of milk and a reagent comprised of a light amplifying compound (Knight, column 3: lines 36-37, lines 43-50) into a reaction chamber, the light amplifying compound reacting with a substance produced by cells of the animal in response to infection to emit light, and immediately measuring the intensity of any light emitted from the sample (Knight, column 3: lines 29-31).
6. Regarding claims 2-4, Knight further discloses reacting the light amplifying compound oxygen with a substance produced by phagocytic leukocytes when they phagocytose bacteria in response to infection to emit light (Knight, column 1: lines 27-28).
7. Regarding claim 5, Knight further discloses measuring intensity of light emitted from the sample is measured up to a maximum of five minutes after adding of the reagent to the sample (Knight, column 3: lines 29-31).
8. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Aerojet GB 1315467.
9. Regarding claim 1, Aerojet discloses a method of testing milk from an animal for the presence of an infection in the animal comprising the steps of introducing a sample of milk and a reagent comprised of a light amplifying compound into a reaction chamber (26), the light amplifying compound reacting with a substance produced by cells of the animal in response to infection to emit light (Aerojet, page 1: line 39-50), and immediately measuring the intensity of any light emitted from the sample (Aerojet, page 3: lines 10-14).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aerojet GB 1315467.

12. Regarding claim 6, Aerojet further discloses connecting a first inlet port (12) of a generally fluid and light tight reaction chamber (26) of variable capacity to a milk sample (11), connecting a second inlet port (14) of the reaction chamber to a supply (13) of reagent and increasing capacity of the chamber (by way of 23) (Aerojet, page 3: lines 5-9) in order to draw milk and reagent into the chamber. Not disclosed is the first inlet port being connected to a milk line in an automated milking system. However, Aerojet discloses maintaining a continuous flow within the system between the sensor and samples (Aerojet, page 3: lines 10-14). It would have been obvious to one of ordinary skill in the art at the time of the invention to connect the first inlet port of Aerojet to a milk line in an automated milking system so to provide continuous flow to the sensor, as suggested by Aerojet.

13. Regarding claim 7, Aerojet further discloses controlling an electrically operating valve (16) to regulate proportion of reagent and sample drawn into the reaction chamber (Aerojet, page 1: lines 79-85). Not disclosed is a plurality of valves with the valves provided in inlet ports. A plurality of valves, with a valve in each inlet port would provide the predictable result of allowing the amount of sample or reagent to be controlled individually with the user able to control the ratio of milk to sample. It would have been obvious to one of ordinary skill in the art

Art Unit: 3643

at the time of the invention to modify the device of Aerojet so that there was a plurality of valves, with a valve in each inlet port, as discussed above.

14. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aerojet GB 1315467 in view of Knight EP 0 489 602.

15. Regarding claim 8, Aerojet discloses a device with the limitations of claim 6 but does not disclose the capacity of the reaction chamber being increased by movement of a piston. Knight discloses the capacity of a reaction chamber (30) being increased by a piston (33). Pistons are well known in the art to vary the capacity of a chamber. The piston of Knight could be used to further automate the operation of the valve of Aerojet. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Aerojet with the piston Knight to provide the predictable results of further automating the system as well as to vary the capacity of the chamber.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristen C. Hayes whose telephone number is 571-270-3093. The examiner can normally be reached on Monday-Thursday, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571)272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3643

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCH  
12 March 2008

Peter Poon  
Examiner  
Art Unit 3643

/Peter M. Poon/  
Supervisory Patent Examiner, Art Unit 3643